Monetary policy in a sustainable union

Luigi Bocola
Stanford University and NBER

Monetary/Fiscal interactions in the Eurozone

- Common monetary/(Mostly) independent fiscal policies
- Subset of countries with high debt-to-output ratios
- Since 2010, exposure to **default risk** for high debt countries

A crude way of thinking about monetary policy in this context:

$$\min_{i} \mathbb{E}\left[(\pi(i) - \bar{\pi})^2\right]$$

Subject to

$$\text{Sustainability constraints} \begin{cases} \text{Avoid financial meltdowns/exits from Eurozone} \\ \text{Avoid political interference with mandate} \\ \ldots \end{cases}$$

Sustainability constraints and monetary policy

How do sustainability constraints interact with the price-stability mandate?

- **Direct shocks** to these constraints have spurred ECB interventions
  - E.g. Various interventions in bond markets to “preserve the euro”
- Constraints can affect the conduct of monetary policy in response to **traditional shocks**
  - E.g. ECB less inclined to raise rates if that tightens sustainability constraints

Roadmap:

1. A direct “idiosyncratic” shock: the formation of the Italian government in 2018
2. A traditional supply shock and the lift-off event of 2022
3. Concluding remarks

Before then: a brief detour on the data I will use

Bond markets and expectations

- Expectations of future inflation and nominal interest rates implied by nominal and inflation-protected bonds
- In Bocola, Dovis, Jorgensen and Kirpalani (2024) we use this data to test for the stability of the US monetary reaction function post 2020

$$i_t = \rho i_{t-1} + (1-\rho)\left[i_t^\star + \psi_\pi(\pi_t - \bar{\pi})\right] + \varepsilon_t$$

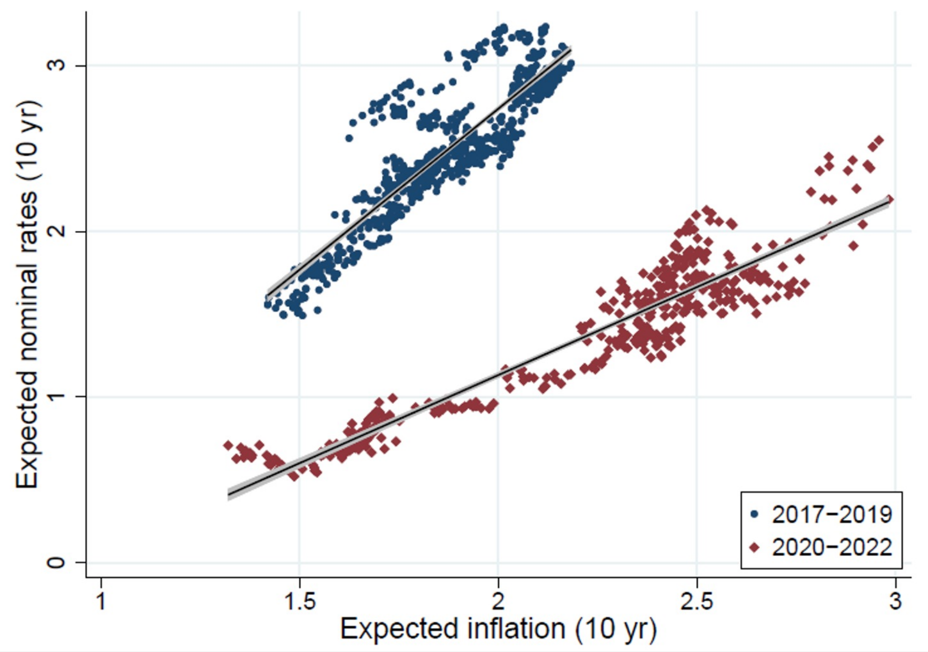
$$\mathbb{E}_t\left[i_k - \rho i_{k-1}\right] = c_t + \psi_\pi \mathbb{E}_t[(1-\rho)\pi_k]$$

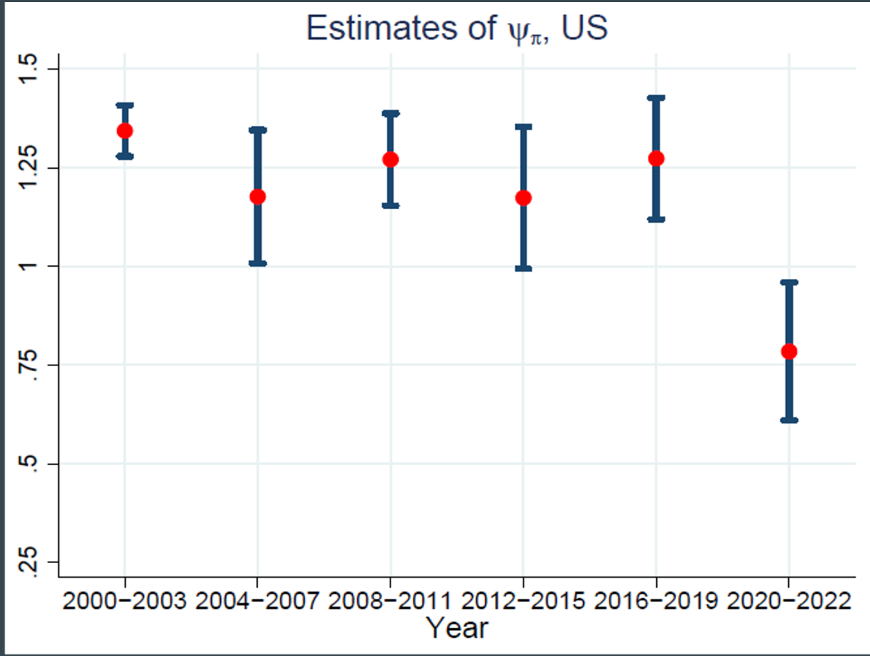
Bond markets and expectations

- Expectations of future inflation and nominal interest rates implied by nominal and inflation-protected bonds
- In Bocola, Dovis, Jorgensen and Kirpalani (2024) we use this data to test for the stability of the US monetary reaction function post 2020

Pros	Cons
Endogeneity of monetary shocks	Risk and liquidity premia
Zero lower bound	No measure of output gap
High frequency	

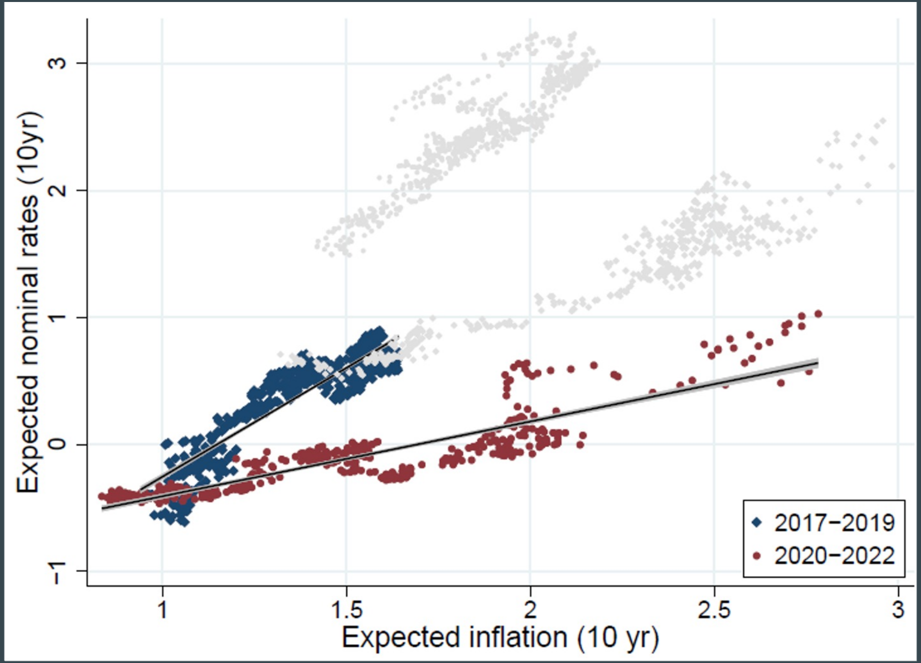
Bond market views of the FED

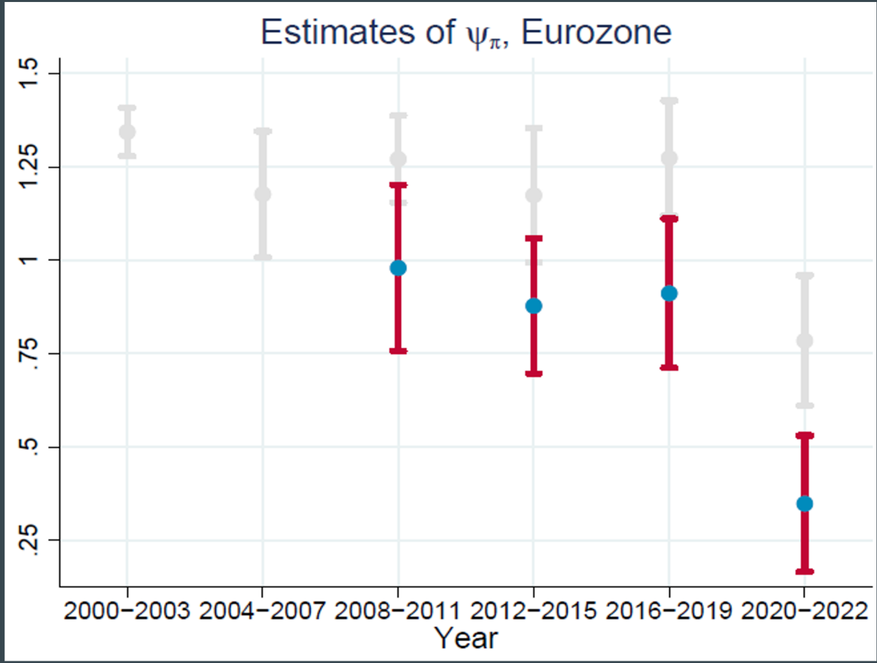




A more Dovish Fed in 2020-2022, consistent with **average inflation targeting**

Bond market views of the ECB

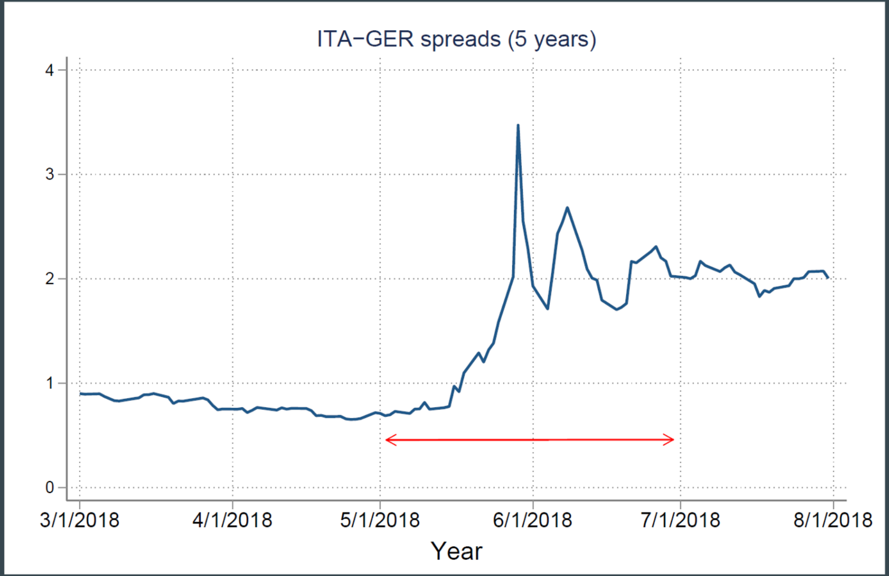




A more Dovish ECB in 2020-2022...role of sustainability constraints?

The anatomy of a direct idiosyncratic shock

- Formation of the Italian government in 2018
  - Three main coalitions, none had enough votes to govern after the election
  - “5 star movement” and “Lega” surprisingly came into an agreement to form a government, mostly based on common anti-EU/anti-austerity views
  - Between May and June, sharp volatility in the ITA-GER spread



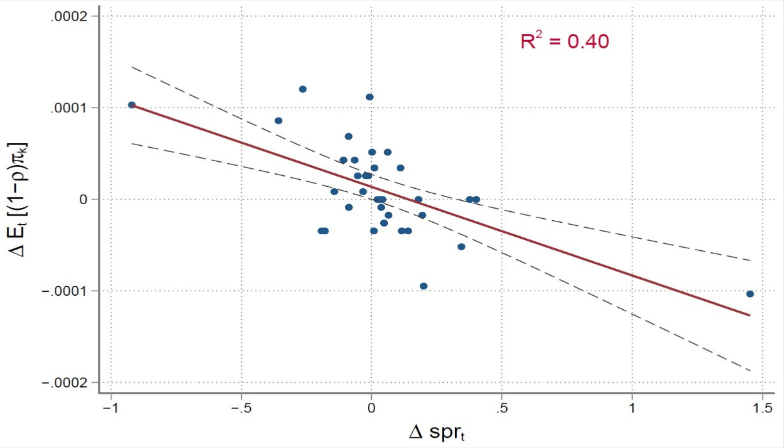
Impact on expected inflation and nominal rates?

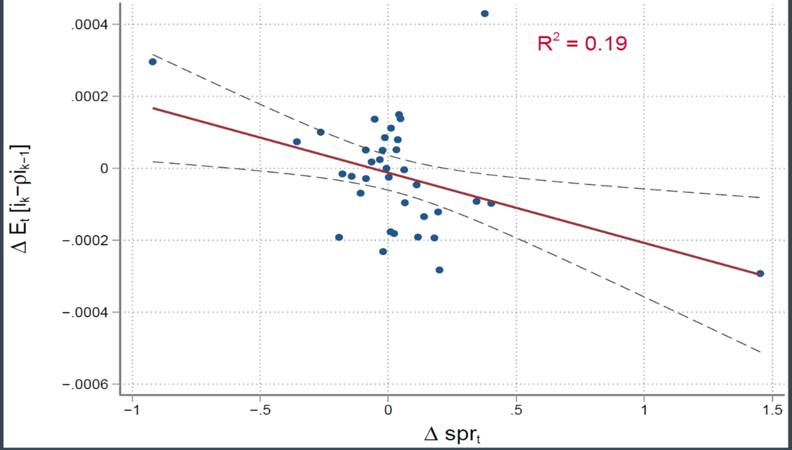
Direct shocks act as “demand” shocks in the Eurozone

- **Inflation** and **nominal rates** expectations **fell** in response to increase in the likelihood of an Italian default

- Implied ψ_π twice as large as unconditional estimate

- Similar results for other events of this type (E.g. Greek referendum)





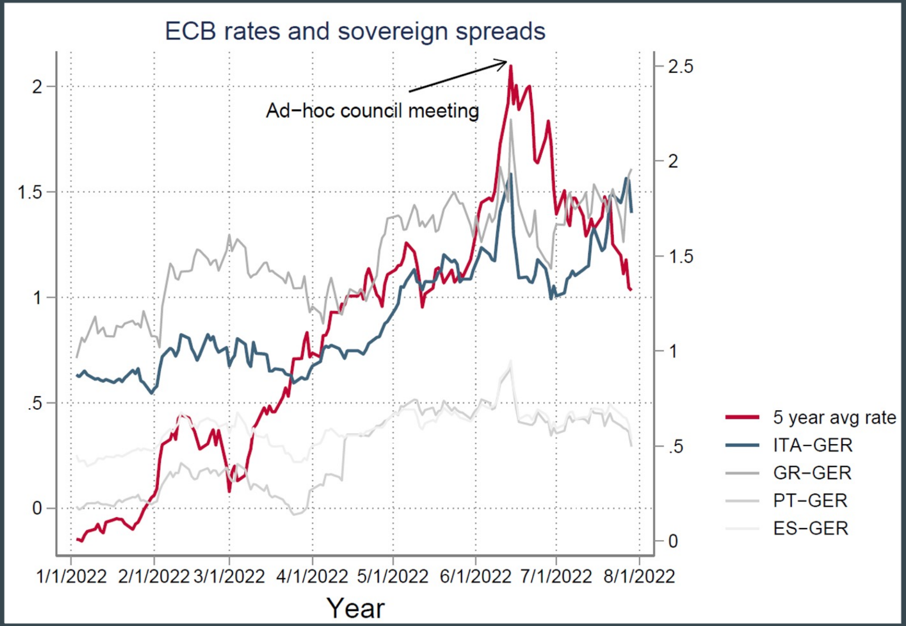
Interpretation

- Bond markets view a **debt crisis in the Eurozone** as **deflationary** for the union
    - Sharp contrast to what happens in Emerging Markets, see Arellano, Bai and Mihalache (2021)
- They also expect the ECB to accommodate these shocks aggressively
- No big change in inflation expectations (15 basis points over the Italian episode)

Bottom line: **Direct shocks do not appear to interfere with the price stability mandate, at least when they are idiosyncratic**

A traditional shock: the lift-off event of 2022

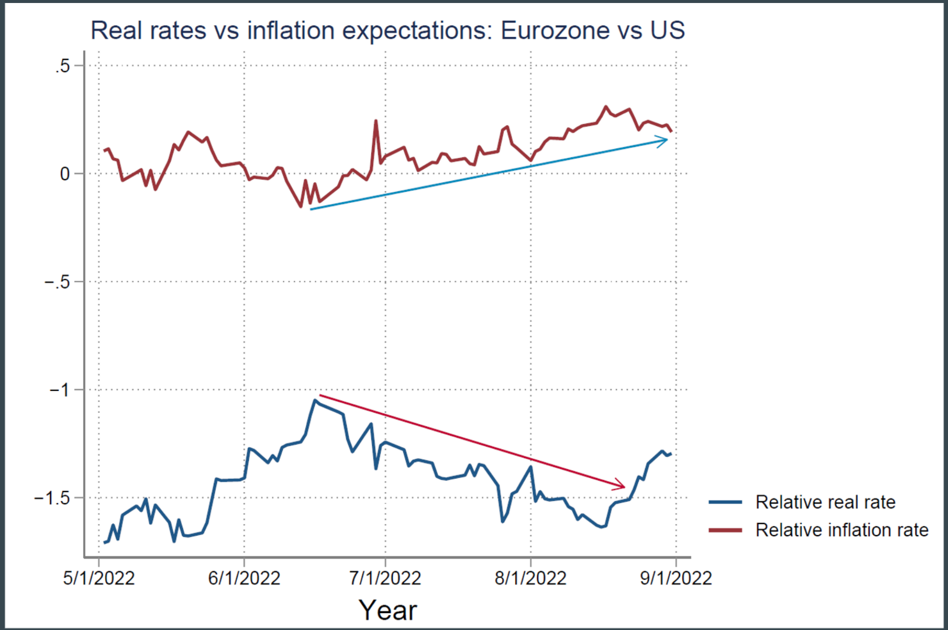
- Inflationary pressures from post-pandemic recovery and energy shocks
- March-May: expectations of rates increases
- June 5: ECB decides to end net purchase under the APP and to raise interest rates
    - Sovereign spreads in peripheral countries jump
- June 15: Ad hoc meeting reverses part of the previous decision and institutes the TPI



Did markets reassess their views on the ECB monetary stance?

Monetary stance and inflation: Eurozone vs US

- Prior to June 15: Markets expected Eurozone rates to increase relative to US
- After June 15: **Reversal of expectations**
- Euro area **inflation followed opposite patterns**: increased in relative terms
- Consistent with markets believing ECB would be more Dovish toward inflation



Case in which sustainability constraints interact with ECB mandate

Summary and further thoughts

- Aside from **price stability**, ECB wants to keep a **sustainable monetary union**
- The two objectives may at time clash, leading to a **trade-off**
- ECB has designed institutions (OMT, TPI, ecc.) to ameliorate this trade-off
  - Appear to have worked when looking at "direct" idiosyncratic shocks to sustainability
  - But these considerations still constraint the conduct of monetary policy in **tightening cycles**
- To fully solve this issue, need to focus on public debt sustainability
  - Reform of stability and growth pact
- **Challenges**
  - Public debt consolidations are becoming a mirage (debt looks like a step function)
  - Budgets are becoming more inflexible (high level of taxes, high level of tax intolerance, etc.)